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EXAMINER

VALENTIN, JUAN D

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,265

Applicant(s)

VAGANOV, VLADIMIR

Examiner

Juan D Valentin II

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Examiner does not understand what Applicant is disclosing in the pre-amble. What is meant by "the package for coupling to **at least two photonic elements**"? Applicant is asked to please clarify and if Applicant would like patentable weight given to the "coupling to at least two photonic elements", Applicant is asked to remove from the pre-amble and place it in the claim body.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 7-11, 21-23, 27, 28, 31, 32, & 51 rejected under 35 U.S.C. 102(b) as being fully anticipated by Bowen et al. (USPN '898, hereinafter Bowen).

Claim 1

Bowen discloses in conjunction with Figs. 1 & 6, a photonic component package for coupling to at least two photonic elements (24 & 28) and for mounting onto a module (56). Bowen discloses a package comprising a package body (2) and at least two pins (20 & 22), the at least two pins for insertion into the module(col. 3, lines 12-15). Bowen discloses wherein the at least two pins each comprise a substantially straight section and the at least two pins extend from the package body without increasing the footprint requirements of the package for mounting the package onto the module. Bowen discloses the package body having a photonic inlet (44), the photonic inlet oriented parallel to a mounting surface of the module (56) and the photonic inlet for attaching to at least one photonic element (28).

Claim 2

Bowen discloses a photonic component package wherein the package further comprises an interior (col. 3, lines 35-58), the interior for housing a semiconductor die (col. 5, lines 4-5). Bowen discloses the semiconductor die comprising a planar side and a die photonic element (Fig.1, ref. 24, col. 3, lines 8-12). Bowen further discloses whereby the semiconductor die is attached to the package and a planar side of the die is positioned approximately orthogonal to the photonic inlet. It can be seen in Fig 6, that the semiconductor die (not labeled) is orthogonal

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to the photonic inlet (44), wherein the die photonic element is optically coupled with the at least one photonic element (28).

Claim 3

Bowen further discloses in conjunction with Fig. 6, a photonic component package wherein the package body further comprises a pinout side. Bowen discloses wherein the straight sections of the at least two pins are positioned substantially orthogonally from the pinout side. Applicant will be appreciated that the reference of Bowen has a pinout side and that the pins (20 & 22) are orthogonal to the pinout side. Therefore, it is the position of the Office that the reference of Bowen reads on the claimed limitations.

Claim 4

Bowen further discloses a photonic component package wherein the photonic element is selected from the group consisting of a wave guide, a planar wave guide, a photonic crystal wave guide, a diffraction wave guide grating, an optical fiber, a collimator, a dual fiber collimator, a multi-fiber collimator, a lens, a diffractive lens, an optical lens, a spherical lens, an aspherical lens, a ball lens, a GRIN lens, a C-lens, a lens system, a mirror, a MEMS-based movable micro-mirror, a flat mirror, a shaped mirror, a diffractive mirror, a grating plate or plates, a laser, a modulator, a photodiode, a VCSEL, and a prism (col. 3, lines 8-12).

Claims 7 & 22

Bowen discloses a photonic component package wherein the at least two pins are oriented to fit into a socket (col. 3, lines 12-16).

Claims 8 & 23

Bowen further discloses a photonic component package wherein the photonic component package is a low cost package (col. 3, lines 15-27). It is the position of the Examiner that Bowen teaches the use of semi-automatic assembly techniques in order to achieve a low cost semiconductor package. Therefore, Applicant will be appreciated that the reference of Bowen reads on the claimed limitation.

Claim 9

Bowen further disclose in conjunction with Fig. 6, a photonic component package wherein the package further comprises a through hole, the through hole coupled with the photonic inlet and the throughhole positioned to allow optical coupling of the die photonic element and the at least one photonic element. Applicant will be appreciated that Bowen in conjunction with Fig. 6, reads on the claimed limitations.

Claim 10

Bowen further discloses in conjunction with Fig. 6, a photonic component package wherein the photonic component package further comprises a lid (2, clip) and the package interior further comprises a cavity (32). Bowen further discloses the lid coupled with the package body and substantially covering the cavity, whereby the semiconductor die is housed within a combination of the cavity and the lid (col. 3, lines 35-48).

Claim 11, 12, 27, & 28

Bowen discloses a package of wherein the semiconductor die comprises a laser (LED) (col. 3, lines 8-16) or a photodiode (col. 5, lines 4-5). Official notice taken. It is inherent in the art of semiconductor dies that photo-active regions within a semiconductor die can be either

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photo-emissive or photo-responsive (photodiode or the like). Therefore, it is the position of the Office that the reference of Bowen reads on the claimed limitations.

Claim 21

Bowen discloses in conjunction with Figs. 1 & 6, a photonic component package, the photonic component package for optically coupling an external photonic element (28) and a die photonic element (24). Bowen discloses the photonic component package for mounting onto a module (56), the die photonic element comprised within a semiconductor die (col. 5, lines 4-5), the semiconductor die having a planar side and at least two electrical contact pads. Bowen discloses the photonic component package comprising a package body (30), a lid (2), a photonic inlet (40) and at least two pins (20 & 22). Bowen discloses the package body having a pinout side and a cavity (32), the semiconductor die attached to the package body and the semiconductor die located within the cavity. Bowen discloses the lid coupled with the package body and enclosing the cavity, a through hole extending through the photonic component package and providing a pathway for light between the die photonic element and the external photonic element. Bowen discloses the photonic inlet oriented parallel to a mounting surface of the module and the photonic inlet for aligning and attaching the external photonic element. Bowen discloses wherein each of the at least two pins are coupled with the pinout side and are electrically coupled with the at least one of the at least two electrical contact pads (18) of the semiconductor die. Bowen discloses each of the at least two pins are positioned approximately parallel with the planar side of the semiconductor die, and the at least two pins extending from the pinout side, wherein the projections of the at least two pins onto the pinout side are fully contained within the footprint of the package body. Bowen discloses whereby the planar side of

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the semiconductor die is positioned approximately orthogonal to the photonic inlet, and light may pass between the die photonic element and the external photonic element via the through hole (col. 2, line 53-col. 4, line 16).

Claim 31 & 32

Bowen in conjunction with Figs. 1 & 6, discloses a photonic component package wherein the photonic inlet (44) is coupled with an emitting photonic element (28) comprised of an optical waveguide (col. 3, line 11), the emitting photonic element for emitting light via the through hole and toward the semiconductor die (24), and the photonic inlet for maintaining an alignment of the emitting photonic element and the semiconductor die.

Claim 51

Bowen in conjunction with Figs. 1 & 6, discloses a method of packaging a photonic component comprising providing an external photonic element (28), providing a semiconductor die (substrate, 24) having a planar side, at least two electrical contact pads, and a die photonic element. Bowen further discloses providing a package having a package body (30 & 40) and at least two pins (20 & 22), a lid (2), a through hole (36), and a photonic inlet (44). Bowen further discloses the package body having a pinout side and a cavity (32), the at least two pins extending from the pinout side of the package body wherein the projections of the at least two pins onto the pinout side are fully contained within the footprint of the package body. Bowen further discloses the lid for attachment to the package body and for enclosing the cavity and the through hole for providing a pathway for light through the package and between the external photonic element (28) and the die photonic element (24). Bowen further discloses the photonic inlet (44) oriented parallel to a mounting surface of a module and the photonic inlet (44) for

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aligning and attaching the external photonic element (28). Bowen further discloses attaching the semiconductor die (24) to the package body (14) within the cavity (32) and in an orientation wherein the planar side of the semiconductor die is approximately orthogonal to the photonic inlet (44). Bowen further discloses bonding of at least one wire (26) to at least one pin (20) and to one of the at least two electrical contact pads. Bowen further discloses attaching the lid to the package body (30) enclosing the cavity (32) and aligning the external photonic element (28) relative to the through hole (36) and the die photonic element (24) to optically couple the external photonic element (28) and the die photonic element (24). Bowen further discloses attaching the external photonic element (28) to the photonic inlet (44) in a optically coupled alignment, whereby the semiconductor die (24) is positioned approximately orthogonal to the external photonic element (28), and the die photonic element (24) and the external photonic element (28) are optically coupled via the through hole (col. 2, line 53-col. 4, line 16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 24 & 52-60 rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen.

Claim 24

It is the position of the Office that even though the reference of Bowen does not specifically disclose photonic component package further comprises at least three pins, it does outline the importance of coupling pins to and extending from the pinout side of a package in order to electrically couple with the semiconductor die (col. 3, line 49-col. 4, line 16). In light of the applicants disclosure, there is no critically distinguishing three pin feature in the applicants disclosure that exemplifies novelty over prior art disclosure. Therefore producing the same results as the applicants limitation, therefore the reference of Bowen reads on applicants claimed limitation.

Claims 52-60

Bowen discloses the claimed invention except it fails to show a method of manufacturing a semiconductor package using standard attachment/testing tools/equipment. It would have been obvious to someone of ordinary skill in the art at the time of the claimed invention to combine Bowen with method of manufacturing a semiconductor package using standard attachment/testing tools/equipment since it was well known in the art to use standard manufacturing practices and tools/equipment when assembling semiconductor packages (col. 3, line 8-col. 4, line 16).

5. Claims 5, 6, 25, & 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen in view of Boudreau et al. (USPN '247, hereinafter Boudreau).

Claims 5, 6, 25, & 26

Bowen substantially teaches the claimed invention except that it fails to show a photonic component package wherein the body comprises ceramic or metal. Boudreau shows that it is

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known to provide a metal or ceramic housing (col. 9, lines 3-7) for an opto-electronic component package. It would have been obvious to someone of ordinary skill in the art to combine the device of Bowen with the ceramic or metal housing of Boudreau for the purposes of providing variations in package design depending on package operating conditions.

6. Claims 13-17, 20, 29, 30, 33, 34, 35, 38, 39, 41-45, & 48 rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen in view of Vaganov et al. (USPAPN 2003/0049009 A1, hereinafter Vaganov).

Claims 13, 14, 29, & 30

Bowen substantially teaches the claimed invention except that it fails to show an photonic component package wherein the semiconductor die is comprised within a MEMS device wherein the MEMS device comprises a mirror, the mirror oriented to reflect light accepted from the through hole. Vaganov shows that it is known to provide a semiconductor die (substrate) with a MEMS mirror in a package [0046-0047] for a variable optical attenuating device. It would have been obvious to someone of ordinary skill in the art to combine the device of Bowen with the semiconductor die with MEMS mirror of Vaganov for the purposes of providing attenuation of an optical signal between two photonic components (Vaganov, abstract).

Claim 15

Bowen in view of Vaganov further discloses a photonic component package wherein the photonic element is selected from the group consisting of a wave guide, a planar wave guide, a photonic crystal wave guide, a diffraction wave guide grating, an optical fiber, a collimator, a dual fiber collimator, a multi-fiber collimator, a lens, a diffractive lens, an optical lens, a

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spherical lens, an aspherical lens, a ball lens, a GRIN lens, a C-lens, a lens system, a mirror, a MEMS-based movable micro-mirror, a flat mirror, a shaped mirror, a diffractive mirror, a grating plate or plates, a laser, a modulator, a photodiode, a VCSEL, and a prism (Bowen, col. 3, lines 8-12).

Claims 16, 17, 33, & 34

Bowen substantially teaches the claimed invention except that it fails to show an photonic component package wherein the photonic component package is further coupled with a receiving photonic element, the receiving photonic element coupled with the photonic inlet and for receiving light from the semiconductor die and via the through hole and wherein the receiving photonic element is selected from the group consisting of an optical fiber. Vaganov shows that it is known to provide a receiving photonic element comprised of an optical fiber coupled with the photonic inlet and for receiving light from the semiconductor die and via the through hole [0046] for an variable optical attenuating device. It would have been obvious to someone of ordinary skill in the art to combine the device of Bowen with the receiving photonic element coupled with the photonic inlet of Vaganov for the purposes of providing attenuation of an optical signal between two photonic components (Vaganov, abstract).

Claim 20 & 41

Bowens discloses a semiconductor electro-optic device package activated through two lead pins (Fig. 1, ref. 20 & 22). Vaganov discloses a MEMS mirror electrically actuated within a semiconductor die package [0046]. It would have been obvious to someone of ordinary skill in the art at the time of the claimed invention to stimulate a response from the MEMS mirror of

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Vaganov utilizing the two electrical leads of Bowen in order to provide actuation means for the MEMS mirror given the combination of Bowens in view of Vaganov.

Claim 35

Bowen in view of Vaganov in conjunction with Fig. 6 (Bowen) discloses a photonic component package wherein the photonic inlet (44) is further coupled with an emitting photonic element (28), the emitting photonic element for emitting light to the die photonic element (24) and via the through hole (36).

Claims 38 & 39

Bowen in view of Vaganov discloses a package of wherein the semiconductor die comprises a laser (LED) (col. 3, lines 8-16) or a photodiode (col. 5, lines 4-5). Official notice taken. It is inherent in the art of semiconductor dies that photo-active regions within a semiconductor die can be either photo-emissive or photo-responsive (photodiode or the like). Therefore, it is the position of the Office that the reference of Bowen in view of Vaganov reads on the claimed limitations.

Claim 40

Bowen substantially teaches the claimed invention except that it fails to show an photonic component package wherein the MEMS device comprises a mirror, the mirror oriented to reflect light via the through hole. Vaganov shows that it is known to provide a semiconductor die (substrate) with a MEMS mirror to reflect light via a through hole in a package [0046-0047] for a variable optical attenuating device. It would have been obvious to someone of ordinary skill in the art to combine the device of Bowen with the semiconductor die with MEMS mirror of

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Vaganov for the purposes of providing attenuation of an optical signal between two photonic components (Vaganov, abstract).

Claim 42

Bowen discloses in conjunction with Figs. 1 & 6, a package body (30 & 40), a lid (2), a photonic inlet (44) and at least two pins (20 & 22). Bowen discloses the package body having a pinout side, a photonic inlet side (44) and a cavity (32), wherein the photonic inlet is attached to the photonic inlet side of the package. Bowen discloses the photonic inlet for attaching a collimator and positioning the optical fibers (28) to be parallel to the mounting surface of the module (56). Bowen discloses the through hole extending through the package to the cavity and each of the at least two pins (20 & 22) coupled with the pinout side electrically coupled through two contact pads with a semiconductor die (24) having two planar sides and the at least two pins extending from the pinout side. Bowen discloses the lid (2) coupled with the body (30 & 40) and enclosing the cavity (32). Bowen discloses whereby the semiconductor die (24) is attached to the body (14) and within the cavity (32) (col. 2, line 53-col. 4, line 16).

Bowen substantially teaches the claimed invention except that it fails to show a VOA package for attachment to a mounting surface of a module, and the semiconductor die comprising or coupled with a movable mirror and the semiconductor die further comprises or is coupled with the movable mirror. Vaganov shows that it is known to provide a VOA package for attachment to a mounting surface of a module and a semiconductor die comprising a MEMS mirror [0046-0047] for a variable optical attenuating device. It would have been obvious to someone of ordinary skill in the art to combine the device of Bowen with the VOA package and

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semiconductor die with MEMS mirror of Vaganov for the purposes of providing attenuation of an optical signal between two photonic components (Vaganov, abstract).

Bowen in view of Vaganov in conjunction with Fig. 5 (Vaganov) discloses a mirror (24) of the semiconductor die (40) positioned to variably optically attenuate an optical signal emitted from at least one of the at least two optical fibers (21 & 30) through a collimator lens (Fig. 3, ref. 22, Fig. 5, ref. 34) by controllably redirecting the optical signal reflected from the mirror (24) and going back through the collimator lens (34) to the other optical fiber (21 & 30).

Bowen in view of Vaganov discloses a VOA package coupled with a collimator (Bowen Fig. 5), the collimator for positioning at least two optical fibers enabling light to pass between the movable mirror and the at least two optical fibers [0046-0047].

Bowen in view of Vaganov disclose the through hole (Bowen, Fig. 6, ref. 36) for enabling light to pass between the movable mirror and the at least two optical fibers.

Claim 43

Bowen in view of Vaganov discloses a photonic component package wherein the at least two pins are oriented to fit into a socket (Bowen, col. 3, lines 12-16).

Claims 44

Bowen in view of Vaganov further discloses a photonic component package wherein the photonic component package is a low cost package (Bowen, col. 3, lines 15-27). It is the position of the Examiner that Bowen teaches the use of semi-automatic assembly techniques in order to achieve a low cost semiconductor package. Therefore, Applicant will be appreciated that the reference of Bowen in view of Vaganov reads on the claimed limitation.

Claim 45

It is the position of the Office that even though the reference of Bowen in view of Vaganov does not specifically disclose photonic component package further comprises at least three pins, it does outline the importance of coupling pins to and extending from the pinout side of a package in order to electrically couple with the semiconductor die (Bowen, col. 3, line 49- col. 4, line 16). In light of the applicants disclosure, there is no critically distinguishing three pin feature in the applicants disclosure that exemplifies novelty over prior art disclosure. Therefore producing the same results as the applicants limitation, therefore the reference of Bowen in view of Vaganov reads on applicants claimed limitation.

Claim 48

Bowen substantially teaches the claimed invention except that it fails to show a VOA package wherein the semiconductor die is comprised within a MEMS device. Vaganov shows that it is known to provide a VOA package wherein the semiconductor die is comprised within a MEMS device [0046-0047] for a variable optical attenuating device. It would have been obvious to someone of ordinary skill in the art to combine the device of Bowen with the VOA package and semiconductor die with MEMS mirror of Vaganov for the purposes of providing attenuation of an optical signal between two photonic components (Vaganov, abstract).

7. Claims 49 & 50 rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen in view of Kowalski (USPN '991 B1).

Claim 49

Bowen substantially teaches the claimed invention except that it fails to show the base is substantially planar and is positioned to make mechanical contact with a surface of a module

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when the photonic component package is mechanically coupled with the module. Kowalski shows that it is known to provide a substantially planar base positioned to make mechanical contact with a surface of a module when the photonic component package is mechanically coupled with the module (col. 2, line 39-col. 4, line 20) for a variable optical attenuating device. It would have been obvious to someone of ordinary skill in the art to combine the device of Bowen with the substantially planar base positioned to make mechanical contact with a surface of a module of Kowalski for the purposes of providing a secure and stable semiconductor device packaging.

Bowen substantially teaches the claimed invention except that it fails to show a photonic component package wherein the package further comprises a boot, the boot for at least partially enclosing the photonic inlet. Kowalski shows that it is known to provide a boot for at least partially enclosing the photonic inlet (col. 2, line 39-col. 4, line 20) for a variable optical attenuating device. It would have been obvious to someone of ordinary skill in the art to combine the device of Bowen with the boot for at least partially enclosing the photonic inlet of Kowalski for the purposes of providing cost effectiveness and ease of manufacturing (Kowalski, col. 1, lines 32-35).

Bowen in view of Kowalski in conjunction with Fig. 2 (Kowalski)discloses an upper wall, a boot opening (42), and a boot hole (34), wherein the boot opening enables at least partial insertion of the photonic element (44 & 45) into the boot. Bowen in view of Kowalski further disclose light may pass between the photonic element (44 & 45) and the semiconductor die (21) through the boot hole. Bowen in view of Kowalski further discloses and the upper wall is coupled with the base, and the upper wall and base in combination house the photonic inlet.

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Applicant will be appreciated that the reference of Bowen in view of Kowalski read on the claimed limitations.

Claim 50

Bowen in view of Kowalski in conjunction with Fig. 2 (Kowalski) discloses a photonic component package wherein the upper wall of the boot further comprises three substantially planar surfaces, wherein a first substantially planar surface is substantially parallel with the base, and a second and a third substantially planar surfaces are both substantially perpendicular to the base. Applicant will be appreciated that the reference of Bowen in view of Kowalski reads on the claimed limitations.

8. Claims 18, 19, 36, 37, 46, & 47 rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen in view of Vaganov and further in view of Boudreau.

Claims 18, 19, 36, 37, 46, & 47

Bowen in view of Vaganov substantially teaches the claimed invention except that it fails to show a photonic component package wherein the body comprises ceramic or metal. Boudreau shows that it is known to provide a metal or ceramic housing (col. 9, lines 3-7) for an opto-electronic component package. It would have been obvious to someone of ordinary skill in the art to combine the device of Bowen with the ceramic or metal housing of Boudreau for the purposes of providing variations in package design depending on package operating conditions.

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Conclusion

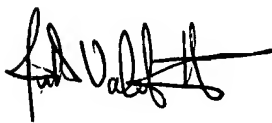
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Berg et al. (USPN '453) discloses a photo-active area as being either photo-emissive or photo-responsive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan D Valentin II whose telephone number is (703) 605-4226. The examiner can normally be reached on M-Th., Every other Fr..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (703) 308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308- 0955.



Juan D Valentin II
Examiner 2877

JDV

May 19, 2003



Michael P. Stafira
Primary Patent Examiner
Technology Center 2800